

Quick Review – North American Breeding Bird Survey

The North American Breeding Bird Survey is available via on-line modules at:

<https://www.pwrc.usgs.gov/bbs>. Below are links to the content within the BBS website that meet the eight fundamental elements of a protocol described in *How to Develop a Survey Protocol: A Handbook*.

The BBS website includes instructions in two formats; see

<https://www.pwrc.usgs.gov/bbs/participate/training/> and

<https://www.pwrc.usgs.gov/bbs/participate/instructions.html>

1. Introduction

- Background and Objectives

<https://www.pwrc.usgs.gov/bbs/about/>

<https://www.pwrc.usgs.gov/bbs/bbsnews/Pubs/Birding-Article.pdf>

2. Sampling Design

- Sample design, sampling units, sample frame, target universe, sample selection and size:

<https://www.pwrc.usgs.gov/bbs/participate/instructions.html>

<https://www.pwrc.usgs.gov/bbs/participate/training/>

<http://www.pwrc.usgs.gov/point/index.cfm?fa=pointcount.whatIsAPointCount>

- Survey timing and schedule

<https://www.pwrc.usgs.gov/bbs/participate/training/8.html>

Within the When to Run Routes section of:

<https://www.pwrc.usgs.gov/bbs/participate/instructions.html>

- Sources of error

Within the Record Keeping section of:

<https://www.pwrc.usgs.gov/bbs/participate/instructions.html>

Also see literature on Point Count Methods listed here:

<http://www.pwrc.usgs.gov/point/index.cfm?fa=pointcount.whatIsAPointCount>

3. Field Methods and Sample Processing

- Pre-survey logistics and preparation

Requirements for participation:

<https://www.pwrc.usgs.gov/bbs/participate/>

Within the Scouting section of:

<https://www.pwrc.usgs.gov/bbs/participate/instructions.html>

Equipment needed:

<https://www.pwrc.usgs.gov/bbs/participate/training/6.html>

- Establishing sampling units

Routes are established by BBS and maps are provided if qualifications are met. See

<https://www.pwrc.usgs.gov/bbs/participate/training/24.html>

To find routes see:

<https://www.pwrc.usgs.gov/bbs/RouteMap/Map.cfm>

- Data collection procedures (field, lab)
<https://www.pwrc.usgs.gov/bbs/participate/instructions.html>
- Processing of collected materials
N/A
- End-of-season procedures
<https://www.pwrc.usgs.gov/bbs/participate/instructions.html>

4. Data Management and Analysis

- Data entry, verification, and editing
Instructions for data entry can be found at:
<https://www.pwrc.usgs.gov/bbs/participate/training/30.html>
and
<https://www.pwrc.usgs.gov/bbs/participate/instructions.html>

Data entry is completed online at:

<https://www.pwrc.usgs.gov/bbs/dataentry/>

- Metadata
http://www.mbr-pwrc.usgs.gov/bbs/BBS_Results_and_Analysis_2013.html
- Data security and archiving
<http://www.mbr-pwrc.usgs.gov/bbs/bbs.html>
- Analysis methods and Software:
See section Papers Describing Technical Aspects of BBS Analysis here:
<http://www.mbr-pwrc.usgs.gov/bbs/helpind11.html>

5. Reporting

- Report content recommendations, Reporting schedule, and Report Distribution.
See sections 17 through 20 of Instructions at:
<https://www.pwrc.usgs.gov/bbs/participate/instructions.html>
This is a national database in which data is summarized through a number of modules.
<http://www.mbr-pwrc.usgs.gov/bbs/bbs.html>
Raw data can be retrieved at:
<https://www.pwrc.usgs.gov/bbs/RawData/>
A State of the Birds report was written in 2009:
https://www.pwrc.usgs.gov/bbs/State_of_the_Birds_2009.pdf

6. Personnel Requirements and Training

- Roles and responsibilities:
<https://www.pwrc.usgs.gov/bbs/participate/>
- Qualifications:
<https://www.pwrc.usgs.gov/bbs/participate/>
- Training:
<https://www.pwrc.usgs.gov/bbs/learning/> and
<https://www.pwrc.usgs.gov/bbs/participate/training/>

7. Operational Requirements

- Budget
I did not find any information regarding costs associated with this survey.
- Staff time
Routes contain 50, 3 minute point counts. Therefore, it will take approximately 2.5 hours to complete one route.
<https://www.pwrc.usgs.gov/bbs/participate/instructions.html>
- Schedule
Routes are sampled once per year during the height of breeding season:
<https://www.pwrc.usgs.gov/bbs/participate/training/8.html>
- Coordination
Each state, province, or territory has a coordinator. Coordinator information can be found at: <https://www.pwrc.usgs.gov/bbs/contactus/>

8. References

There is a searchable citation database available which contains 578 citations. See “A Bibliography for the North American Breeding Bird Survey” at:

<http://www.pwrc.usgs.gov/library/bibs.cfm>

Published Reviews of BBS Survey Methods

- Bart, J., J. B. Buchanan, and B. O. B. Altman. 2005. Improving the Breeding Bird Survey. Pages 771-776 in C. John Ralph and Terrell D. Rich. Bird conservation implementation and integration in the Americas : Proceedings of the third International Partners in Flight Conference, March 20-24, 2002, Asilomar, California. General Technical Report PSW-GTR-191. U. S. Forest Service, Pacific Southwest Research Station, Albany, California.
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- Kendall, W. L., B. G. Peterjohn, and J. R. Sauer. 1996. First-time observer effects in the North American Breeding Bird Survey. *Auk* 113(4):823-829.
- Lawler, J. J. and R. J. O'Connor. 2004. How well do consistently monitored breeding bird survey routes represent the environments of the conterminous United States? *Condor* 106(4):801-814.
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